



Say: Welcome to the Playground Supervision and Sun Safety Training. I am glad you are here. My name is _____ and I am (state your professional title) from (your professional organization).

Healthy Child Care Iowa and Iowa Department of Public Health have teamed up with the National Program for Playground Safety to raise awareness of playground supervision and sun safety. Together the organizations are advocating for active outdoor play for children to support short and long term health for young children and Iowa childcare programs.

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This publication and training is to be used only by those trained participants of the Playground Supervision and Sun Safety Iowa Train-the-Trainer Program and those who have completed the instructor agreement form.



Say: Opportunities to play and learn in an outdoor setting have been an integral part of educating young children. **Playgrounds** are a hub for child play. These spaces support young children's physical, social, emotional, and intellectual development.

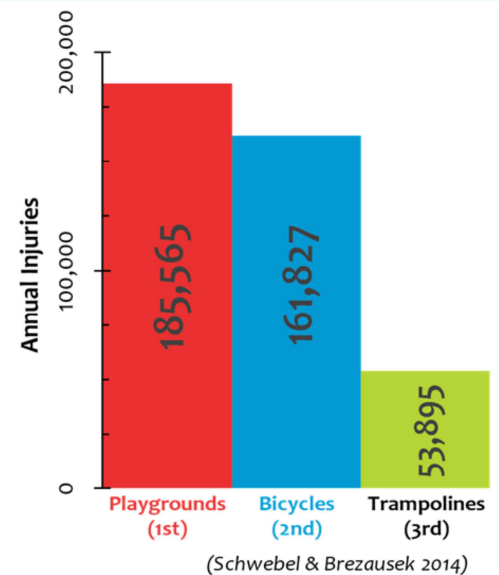


The outdoor environment is a place for children to develop, socialize, express ideas, problem-solve, and engage in meaningful relationships.

Say: Therefore, we want to maximize opportunities for young children because these places are special for young children so they can develop, socialize, express ideas, problem-solve, and engage in meaningful relationships. This training focuses on the behaviors and human interactions at playgrounds. The goal is for us to offer quality and safe outdoor experiences for children.

Are Playground Injuries A Problem?

- Each year in the United States, over 200,000 children are injured on playgrounds seriously enough to seek emergency room treatment.
(Hanway 2016; Tuckel et al. 2017)
- Upper extremity and head and neck injuries are a concern. Fractures of an upper limb account for approximately half of medically treated injuries, while head and neck injuries account for one third of all injuries.
(Adelson et al. 2018; Tuckel et al. 2017; Loder 2008)
- Annually 20,000 children visit U.S. emergency departments for traumatic brain injuries on playgrounds.
(Cheng et al. 2016)



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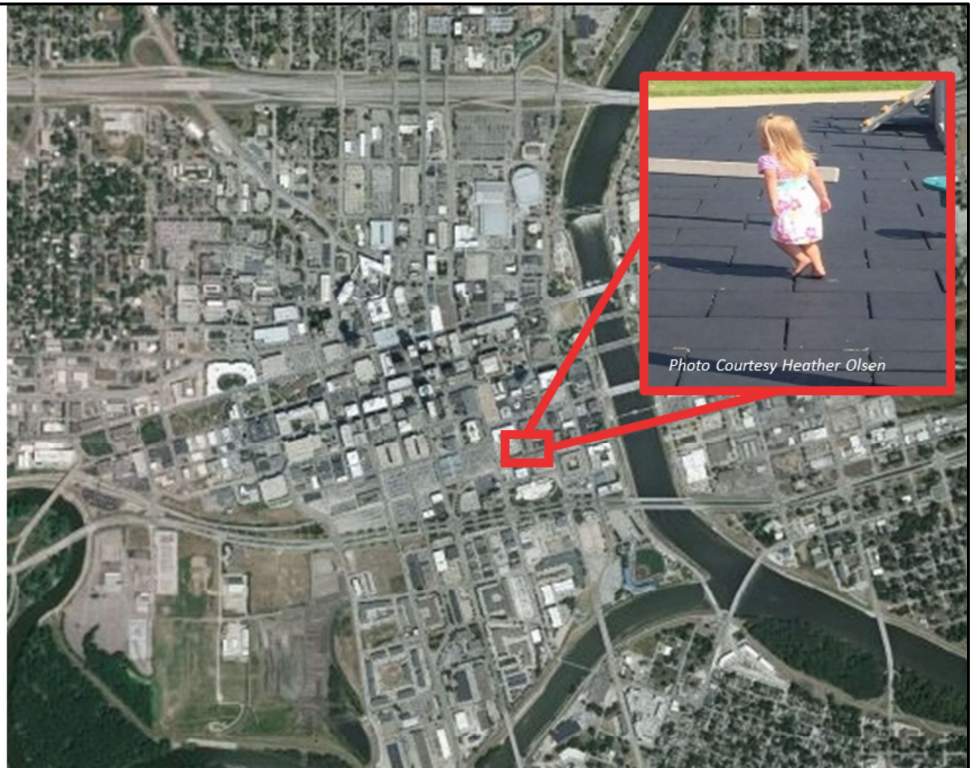
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Say: Unfortunately, the reality is that each year approximately 200,000 children are treated in emergency rooms for playground-related injuries (CPSC, 2016). This comes out to about 500 injuries per day. Studies have shown playgrounds are THE LEADING location of recreationally-induced injuries to children aged 1-10.

Data has reported that more than 21,000 children per year are treated in emergency departments for playground-related traumatic brain injuries (Cheng, 2016).

Playgrounds often present some of the **highest temperatures within urban areas**, amplifying heat extremes – and most **playgrounds lack adequate shade.**

(Olsen, Kennedy, & Vanos, 2019; Block 2019)



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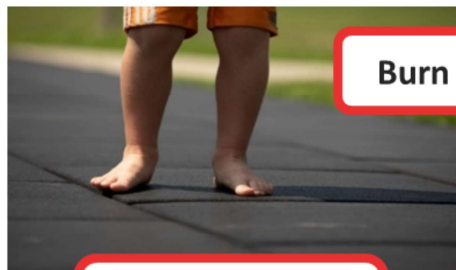
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Say: We also need to think about climate change. Climate change is happening – causing environmental extremes ALL YEAR ROUND. Iowa summers are seeing dramatic differences. The number of extremely hot days is **expected to nearly double** from now to 2050. Iowa winters are also changing.

The increase of temperature will have significant impacts on Iowa's children. Research has found playgrounds **present some of the highest temperatures** within urban areas. The larger picture above is of downtown Des Moines, the smaller inset photo is of a young girl playing on a hot surface with no shoes. The photographer who captured the photo reported it was a humid, 90 degree Iowa day. The young child was running around saying "hot", "hot", "hot"....If you are wondering, ...adults were present, and they were gathered under a shaded tree.

Research is informing us playgrounds lack adequate protection from excessive sun exposure. Heat and humidity and even cold temperatures can result in children being uncomfortable and unsafe when they are playing—learning—in the outdoor environment. When children (and teachers/ providers) are uncomfortable -- Playgrounds then become underutilized.

Negative Consequences to Children



Burn Injuries

**Broken Bones
and Head Injuries**

Restricted Play
lack of comfort



UV Exposure
linked to adult skin cancer

Respiratory Illness



Hyperthermia

Sunburn

**Heat Related
Illness**

Say: We want the outdoor environment and play equipment to be safe. Unsafe equipment, improper surfacing, extreme temperatures, and harmful UV radiation can negatively impact children's health and well-being. Unsafe consequences could potentially result in:

- Restricted play (Lack of comfort)
- Long term UV exposure which is linked to adult skin cancers
- Broken bones and head injuries
- Sun burn and surface burn injuries
- Hyperthermia
- Respiratory Illness
- Heat Related Illness

Contemporary Playgrounds

Contemporary playgrounds can expose children to unsafe surface temperatures (slides, surfacing), during peak sun (10 am–2 pm) and high temperature periods.

(Vanos, 2016)



**Air Temperature –
80.3 °F**



**Surface Temperature –
176.5 °F**

Say: Contemporary playgrounds can expose children to unsafe surface temperatures. For instance, slides, and surface materials may become unsafe during peak sun hours (10am – 2pm) and high temperature periods of the day. Unsafe Equipment and Extreme environmental conditions can negatively impact the USE and PLAYABILITY of children's spaces.

Overall Purpose of Presentation

1. Playground Supervision
2. Sun Safety
3. ABCs of Playground Supervision (*NPPS's Model*)
 - A. *Anticipation*
 - B. *Behavior*
 - C. *Considerations*
4. Resources

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Say: This training is specifically to target the topic of playground supervision and sun safety. Throughout the training, the term “supervisor” will be discussed. Supervisors are child-care providers who supervise children on the playground.

The training will highlight playground supervision techniques and sun safety information so that Iowa child-care outdoor spaces can be utilized safely. The topics covered in this training include:

- Playground Supervision
- Sun Safety
- NPPS’s playground Supervision Model focusing on the ABCs of Supervision
- Resources and tips to support playground supervision and sun safety



Say: Before we dive into the course content, we would like to take a moment to get to know everyone here today.

See Activity #1 for your reference

Introductions

- Your name and where you're from
- Professional Role and how many years in early childhood
- Pick one and write on the notecard
 - One playground supervision experience
 - One question regarding supervision and/or sun safety

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Say: As the note cards are passed around, please take a couple minutes to read the slide and decide if you would like to share a playground supervision experience or a question related to supervision/sun safety you might have. Once you have made your decision, please write it down on the note card.

Directions:

1. Pass out the notecards to each participant.
2. Have participants to write on notecard, (either or both)
 - (A) One playground supervision experience
 - (B) One question they have regarding playground supervision or sun safety
3. Instruct participants to introduce themselves to everyone.
4. Move around the room for introduction including
 - Name and where they are from
 - Job / title and how many years in early childhood
 - Share the experience or question
5. Conclude by summarizing common experiences.
6. If time permits, ask the whole group what questions they would like to discuss during the training



Wrap Up & Debrief Activity #1

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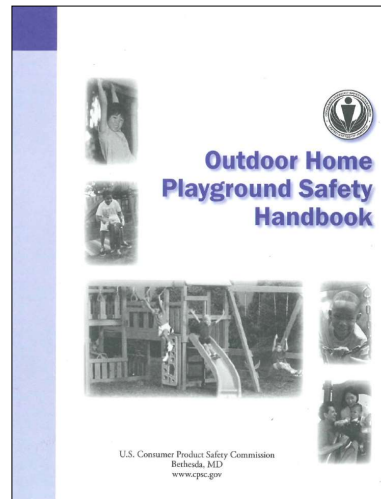
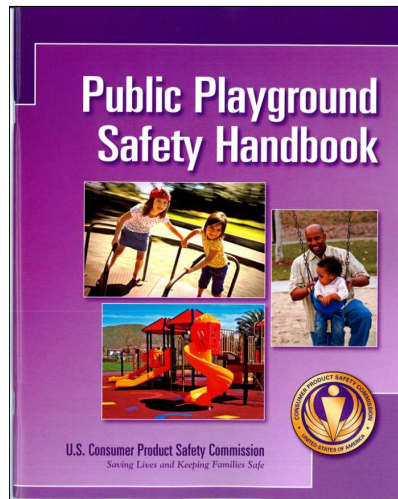
Wrap Up, Summarize, and Debrief: Briefly summarize any repeated themes in the comments shared by the participants.

Say: Thank you for sharing the stories and experiences you have had on playgrounds.

If time permits, ask the whole group what questions they would like to discuss during the training.

Playground Safety

Standards & Regulations



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Say: As many of us shared during our first activity, outdoor environments are important for young children, but these settings also pose threat of injury and health concerns to children.

Ask : Are any of you familiar with the U.S. Consumer Product Safety Commission? The CPSC is one governmental agency who has taken a leading role in preventing playground injuries.

Say: The U.S. Consumer Product Safety Commission (CPSC) has published guidelines for public playgrounds and home playgrounds. The guidelines are recognized as the “STANDARD OF CARE” that should be followed by professionals in the field. The two publications are free and can be downloaded from the CPSC.gov Website.

Show: CPSC Handbook (in your training binder)

Playground Safety

- National Association for the Education of Young Children Program Standards (NAEYC)
- National Association for Family Child Care Quality Standards (NAFCC)
- National Health and Safety Performance Standards (Caring for Our Children)
- Environment Rating Scale

Say: There are several other agencies working to keep playgrounds safe and help guide best practice for supervision and sun safety. The agencies and their best practice guidelines are the National Association for the Education of Young Children Program Standards, National Association for Family Child Care Quality Standards, National Health and Safety Performance Standards in Caring for Our Children, and the Environment Rating Scales.

Playground Safety

Iowa DHS Regulations

- Iowa Licensing Standards & Procedures AND Child Development Home Registration Guidelines
- Iowa Quality Rating System (QRS)



Child Care Centers and Preschools

**LICENSING
STANDARDS AND PROCEDURES**

Comm. 204 (Rev. 7/19)

Say: The state of Iowa is also taking an active role in educating and creating awareness of playground safety. It is encouraged to utilize and reference these resources often to maximize quality outdoor spaces in both home child-care programs and public child-care programs.

S.A.F.E.™ Injury Prevention Framework

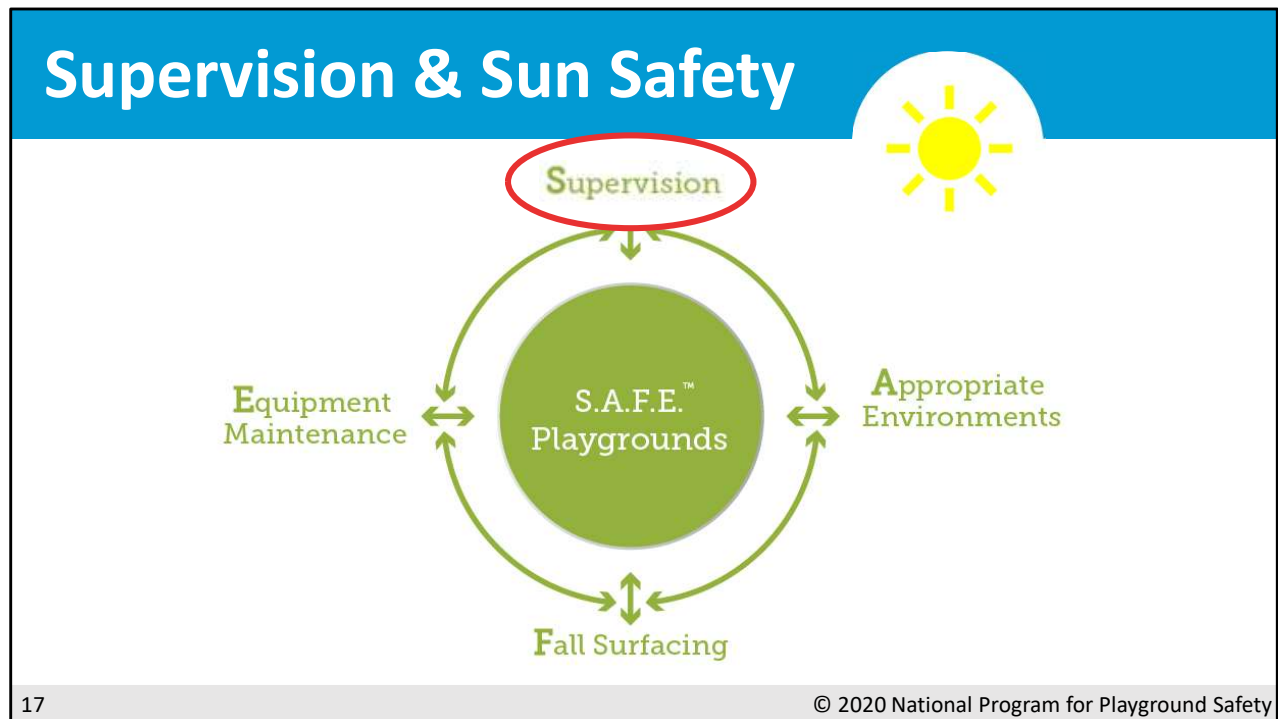


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Say: The National Program for Playground Safety created the S.A.F.E.™ injury prevention framework in 1996 which identifies potential playground risk factors. The framework was documented in the *National Action Plan for the Prevention of Playground Injuries* and was released at a Press Conference in Washington DC. It was developed to raise awareness on playground safety at the national, state, and local level. It has since provided a blueprint for the creation of Safe Play.

Each element poses possible playground risk factors. Rather than being hierarchical in nature, these four elements interact with one another to create a safe and healthy play environment for children. For instance, **Supervision** of children can help prevent injury and save lives. **Appropriate Environments** result in good design and management for inclusive, age-appropriate, and environmentally comfortable play. **Fall Surfacing** is critical to reduce the severity of injuries. **Equipment Maintenance** can improve the safety of the equipment while increasing the life space of equipment and materials. The absence of any one of these factors increases the probability of injury.



Say: The training today will be focusing on the “S” in the SAFE Injury Prevention Framework: Supervision and Sun Safety.

Supervision is Important



Supervision is MORE than just watching the children.

Staff training can reduce injuries and improve play experiences!

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Say: The term “supervisor” refers to each and every child-care provider that supervises children on the playground. Supervisors are essential to the child’s play experience and to the playground safety equation. Supervision is often one of the most overlooked components because *sometimes* it is assumed that every adult knows how to supervise. However, supervision is more than just watching the children. Supervisors should be properly equipped staff -- and trained to oversee the playground.

Research has shown that with proper training and staff consistencies, injuries and unsafe environmental exposures can be reduced, and children’s play experiences are improved.

Supervision is Important

Supervision

Protects Children

*from unsafe
environmental exposure*

**Prevents
Injuries**

Saves Lives



Say: Supervision is essential to the playground safety equation because it protects children from unsafe environmental exposure, prevents injury, and saves lives.

Supervision is Important



UV exposure and sunburns as a child are linked to many adult skin cancers including melanoma.

*(Dennis et al. 2008;
American Cancer Society
2013)*

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Say: In addition to supervising playground behavior and activities, it is important to ensure that children and staff take measures to protect themselves from the sun, extreme heat, and heat related illnesses. Supervisors lead decisions on whether or not it is safe to play outside. Nearly 5 million people are treated for skin cancer each year in the United States, and one bad sunburn in childhood doubles the risk of skin cancer later in life. Properly trained supervisors can monitor environmental conditions and decide whether situations are safe.

Playground Temperatures

Cold Temperatures

Cold conditions could bring the risk of frostbite and hypothermia. Cold temperatures of equipment can be of concern for children.

Hot Temperatures

Children are susceptible to hot conditions because their bodies regulate temperatures less efficiently than adults (*Vanos, et al., 2016*). These uncomfortable experiences discourage children from being physically active and result in sedentary behavior.

Dangerously Hot Surface Temperatures

Surface temperatures below 115°F are safe. Surfaces between 115-140°F should be monitored regularly and **surfaces above 140°F could cause a burn within 3 seconds.**

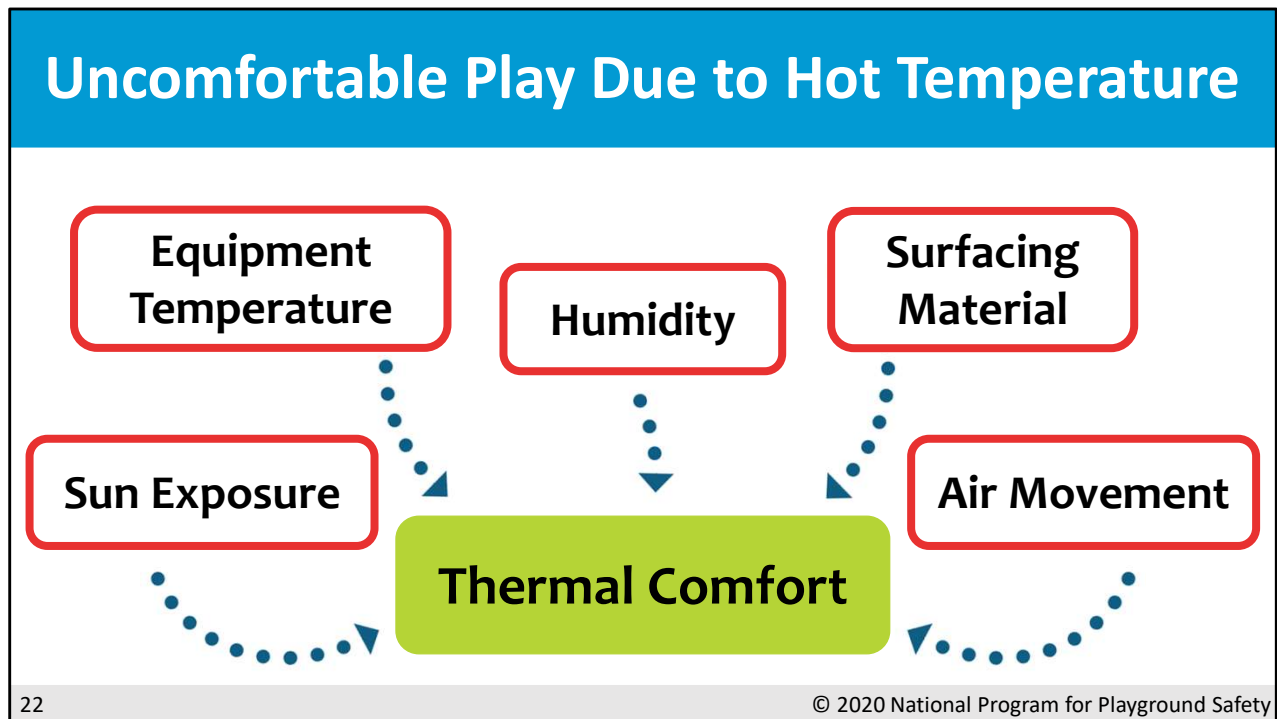
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Say: Now let's look at the impact of environmental temperatures. First, we have cold temperatures which could bring the risk of frostbite and hypothermia. It is important to check for hazards cold temperatures can bring. For example, metal equipment have been recorded at 24.6 degrees F in the winter. At these temperatures, there is a possibility for falls and slips due to ice.

Second is "hot temperatures." Young children are susceptible to hot conditions because their bodies regulate temperatures less efficiently than adults (*Vanos, et al., 2016*). These uncomfortable experiences discourage children from being physically active and result in sedentary behavior.

Providers should be aware that temperatures can become so hot they are dangerous. Surfaces between 115-140°F should be monitored regularly and surfaces above 140°F could cause a burn within 3 seconds.



Say: Sun exposure, surface temperature of equipment, surfacing material, air movement, and humidity, combine to affect what is known as thermal comfort. Thermal comfort relates to being satisfied with current environmental conditions. Studies have shown that when thermal conditions become uncomfortable, children's play behaviors are affected.

Consider Thermal Comfort Factors

Appropriate Thermal Comfort Supports Active Childs Play

**For more information on thermal comfort, see
Thermally Comfortable Playgrounds on the
NPPS Website**

https://www.playgroundsafety.org/thermally_comfortable_playgrounds



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Say: Uncomfortable environments are directly linked to contributing factors for children being less active. Realistically, we know supervisors can't control environmental conditions. However, they can be aware of how environmental conditions can affect comfort and the safety of play.

A Thermally Comfortable Playgrounds report was developed by NPPS in conjunction with the Standards Council of Canada and Health Canada. The report is freely available and can be found on NPPS Website.

Extreme Environmental Conditions

Environmental conditions may lead to:

- Sunburn
- Heat-related Burns
- Frostbite
- Hyperthermia or Hypothermia
- Asthma
- Eye Damage

*Awareness can
help **REDUCE**
heat related
illnesses!*

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Say: As Iowa climate changes there are important factors for child-care programs to be aware of which can impact young children and adults. Outside areas can be busy spaces for children. Program staff should be aware of hidden dangers such as extreme sun exposure, unsafe UV rays, air pollution, and pesticides.

- **Sunburn:** A sunburn is the body's natural defense mechanism created to protect us from the dangerous ultraviolet sun rays. Sunburns affect your body's ability to stay cool and can lead to dehydration. Unprotected skin can burn in as little as 15 minutes. Sun damage can increase the risk of skin cancer later in life.
- **Heat-related burns:** Playground equipment can become heated from the sun and high outdoor temperatures, which can cause severe injuries to children, including second degree burns.
- **Frostbite:** When the skin is exposed to extreme cold for too long, frostbite can occur. Frostbite mostly affects small, exposed body parts such as fingers and toes.
- **Hyperthermia:** A group of heat-related conditions characterized by abnormally high body temperatures which can cause a person's internal temperature to rise.
- **Hypothermia:** A medical emergency that occurs when your body loses heat faster than it can produce heat, causing dangerously low body temperature.
- **Increased symptoms of asthma or other chronic health conditions:** Asthma may cause difficulty breathing, chest pain, cough, and wheezing.
- **Eye Damage:** UV radiation can damage the eye's surface tissues as well as the cornea and lens. Too much exposure to UV light raises your risk of cataracts, eye cancers, growths on the eye, and snow blindness.


Understand the Weather

Wind-Chill




- 30° is **chilly** and generally uncomfortable
- 15° to 30° is **cold**
- 0° to 15° is **very cold**
- 15° to 0° is **bitter cold** with significant risk of **frostbite**
- 15° to -60° is **extreme cold** and **frostbite** is likely
- 60° is **frigid** and exposed **skin will freeze** in 1 minute

Heat Index



- 80° or below is considered **comfortable**
- 90° beginning to feel **uncomfortable**
- 100° **uncomfortable** and may be **hazardous**
- 110° considered **dangerous**


***All temperatures are in degrees Fahrenheit



Child Care Weather Watch

Changing weather make it necessary for child care providers to monitor those changes throughout the day. Planning for daily playtime or field trips, weather safety is an important part of child care provider's daily routine. Monitoring the weather is an essential part of addressing the health and safety needs of children in child care.

Use this chart and the helpful links below to help plan for safe daily outdoor time.



Wind-Chill Factor Chart (in Fahrenheit)

		Wind Speed in mph								
		Calm	5	10	15	20	25	30	35	40
Air Temperature	40	40	36	34	32	30	29	28	28	27
	30	30	25	21	19	17	16	15	14	13
	20	20	13	9	6	4	3	1	0	-1
	10	10	1	-4	-7	-9	-11	-12	-14	-16
	0	0	-11	-16	-19	-22	-24	-26	-27	-29
	-10	-10	-22	-28	-32	-35	-37	-39	-41	-43

Comfortable for outdoor play
 Caution
 Danger




Heat Index Chart (in Fahrenheit %)

		Relative Humidity (Percent)												
		40	45	50	55	60	65	70	75	80	85	90	95	100
Air Temperature (F)	80	80	80	81	81	82	82	83	84	84	85	86	86	87
	84	83	84	85	86	88	89	90	92	94	96	98	100	103
	90	91	93	95	97	100	103	105	109	113	117	122	127	132
	94	97	100	103	106	110	114	119	124	129	135			
	100	109	114	118	124	129	130							
	104	119	124	131	137									

Websites:
 Air Now Air Quality (check by zip code) <https://www.airnow.gov>
 National Weather Service Wind Chill/Heat Index <https://www.weather.gov/ctp/ChillHeat>
 Caring for Our Children National Resource Center for Health and Safety in Child Care and Early Education 4th Ed. ncckids.org/CFOC

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Say: The Child Care Weather Watch is a great resource to monitor weather and is an essential part of addressing the health and safety needs of children in child-care.

Child Care Weather Watch		
<p>INFANTS AND TODDLERS</p> <ul style="list-style-type: none"> Are unable to tell you if they are too hot or cold. NO sunscreen for infants younger than 6 months. Keep infants out of direct sunlight and stay in the shade. Limit the amount of time outdoors. Infants older than 6 months of age and toddlers, apply sunscreen to all exposed areas avoiding eyes. In cooler or cold months, dress infants in layers to keep them warm. Will tolerate shorter periods of outdoor play. <p>YOUNG CHILDREN</p> <ul style="list-style-type: none"> Remind children to take rest breaks and drink water. May insist they are not too hot or cold because they are enjoying playtime. <p>OLDER CHILDREN</p> <ul style="list-style-type: none"> Need a firm approach to wearing proper clothing for the weather. May resist applying sunscreen and drinking water. 	<p> Condition GREEN</p> <p>Children may play outdoors and be comfortable. Watch for signs of children becoming uncomfortable while playing. Use precautions regarding clothing, sunscreen, and beverages for all child age groups.</p> <p> Condition YELLOW</p> <p>Use caution and closely observe the children for signs of being too hot or cold while outdoors. Follow guidance in condition green as well.</p> <p> Condition RED</p> <p>Infant/toddlers and young children should not play outdoors due to the health risks. Older children may play outside for a very limited time with proper precautions.</p>	<p>What clothing, beverages, and protections are appropriate?</p> <ul style="list-style-type: none"> Clothe children to maintain a comfortable body temperature (warmer months - lightweight cotton, colder months - wear layers of clothing). Drinking water helps the body maintain a comfortable temperature. Water should be readily available both inside and outside. Sunscreen use is important for children and infants over age six months. Use a sunscreen labeled as SPF-15 or higher. Look for sunscreen with UVA and UVB protection. Sunscreen needs to be reapplied every 2 hours. Read and follow all label instructions for the sunscreen product. Shaded play areas protect children from the sun. Make sure to have shade available in your outdoor play area.
<p>The weather forecast may be confusing unless you know the terminology:</p> <ul style="list-style-type: none"> Blizzard Warning: There will be snow and strong winds that produce a blinding snow, deep drifts, and life threatening wind chills. Seek shelter immediately. Heat Index Warning: How hot it feels to the body when the air temperature (in Fahrenheit) and relative humidity are combined. Relative Humidity: The percent of moisture in the air. Temperature: The temperature of the air in degrees Fahrenheit. Wind: The speed of the wind in miles per hour. Wind Chill Warning: There will be sub-zero temperatures with moderate to strong winds expected which may cause hypothermia and great danger to people, pets and livestock. Winter Weather Advisory: Weather conditions may cause significant inconveniences and may be hazardous. If caution is exercised, these situations should not become life threatening. Winter Storm Warning: Severe winter conditions have begun in your area. Winter Storm Watch: Severe winter conditions, heavy snow and ice are possible. 		

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HCCI June 2020

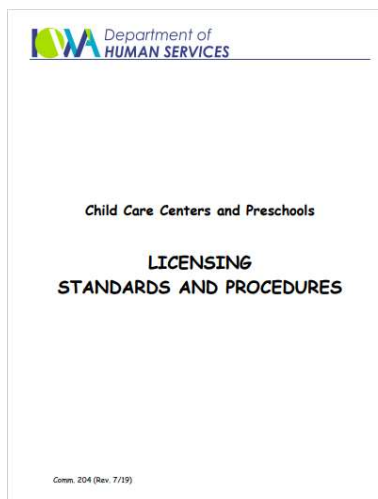
Say: Every program should have a copy of this posted. We will be going over this resource more once we get to the Anticipation section of the training.

Iowa DHS Regulations Regarding Shade and Sunscreen

Child Development Home Registration Comm 143

- 110.8(2) Outdoor space. A safe outdoor play area is maintained in good condition throughout the year that has both sunshine and shade areas.
- Parent consent to apply sunscreen.

Programs utilize this resource when making decisions



Say: IA DHS has regulations regarding shade and Sunscreen. Home programs should have a play area maintained in good condition throughout the year that has both sunshine and shade areas. Also, parent consent to apply sunscreen.

Iowa DHS Regulations Regarding Shade and Sunscreen

Child Care Centers and Preschools Licensing Standards Comm 204

- **109.11(3)** The outdoor area shall include safe play equipment and an area of shade. Because of the dangers of excessive exposure to sun, the outdoor **play area must have shade**, whether naturally from trees or man-made by awning, tent, or a structural aspect of the building that provides shade. Young children's vulnerable skin should be **protected with sunscreen** during outdoor play.
- 109.10(3) Delineate specific procedures for dispensing, storage, authorization and recording of all prescription and nonprescription medications, including ointments, sunscreens, etc.
- **109.10(8) Handwashing required** after applying sunscreen and insect repellent.

Programs utilize IA DHS resource when making decisions

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Say: IA DHS regulations For Child Care Centers and Preschools are as follows:

- The outdoor area shall include safe play equipment and an area of shade. Because of the dangers of excessive exposure to sun, the outdoor play area must have shade, whether naturally from trees or man-made by awning, tent, or a structural aspect of the building that provides shade. Young children's vulnerable skin should be protected with sunscreen during outdoor play.
- Delineate specific procedures for dispensing, storage, authorization and recording of all prescription and nonprescription medications, including ointments, sunscreens, etc.
- Handwashing required after applying sunscreen and insect repellent.

ABCs of Supervision



ANTICIPATING potential hazards and problems



Understanding appropriate **BEHAVIORS** of the children and supervisors



Identifying **CONSIDERATIONS** to support supervisors

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Say: One way to ensure a safe environment is to provide competent and trained supervisors. The focus of this training is based on the *National Program for Playground Safety's Supervision Model* which is understanding the ABCs of Supervision: anticipation, behavior, and considerations.

Specifically, this training will address **Anticipating** potential hazards and problems, Understanding appropriate **behaviors** of the children and supervisors, and identifying **considerations** to support supervisors.